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(71) Applicant (for all designated States except US): INDIGO
TECHNOLOGIES GROUP PTY LTD [AU/AU]; Unit
13, 43 Lang Parade, Milton, QLD 4604 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): TRUCE, Rodney

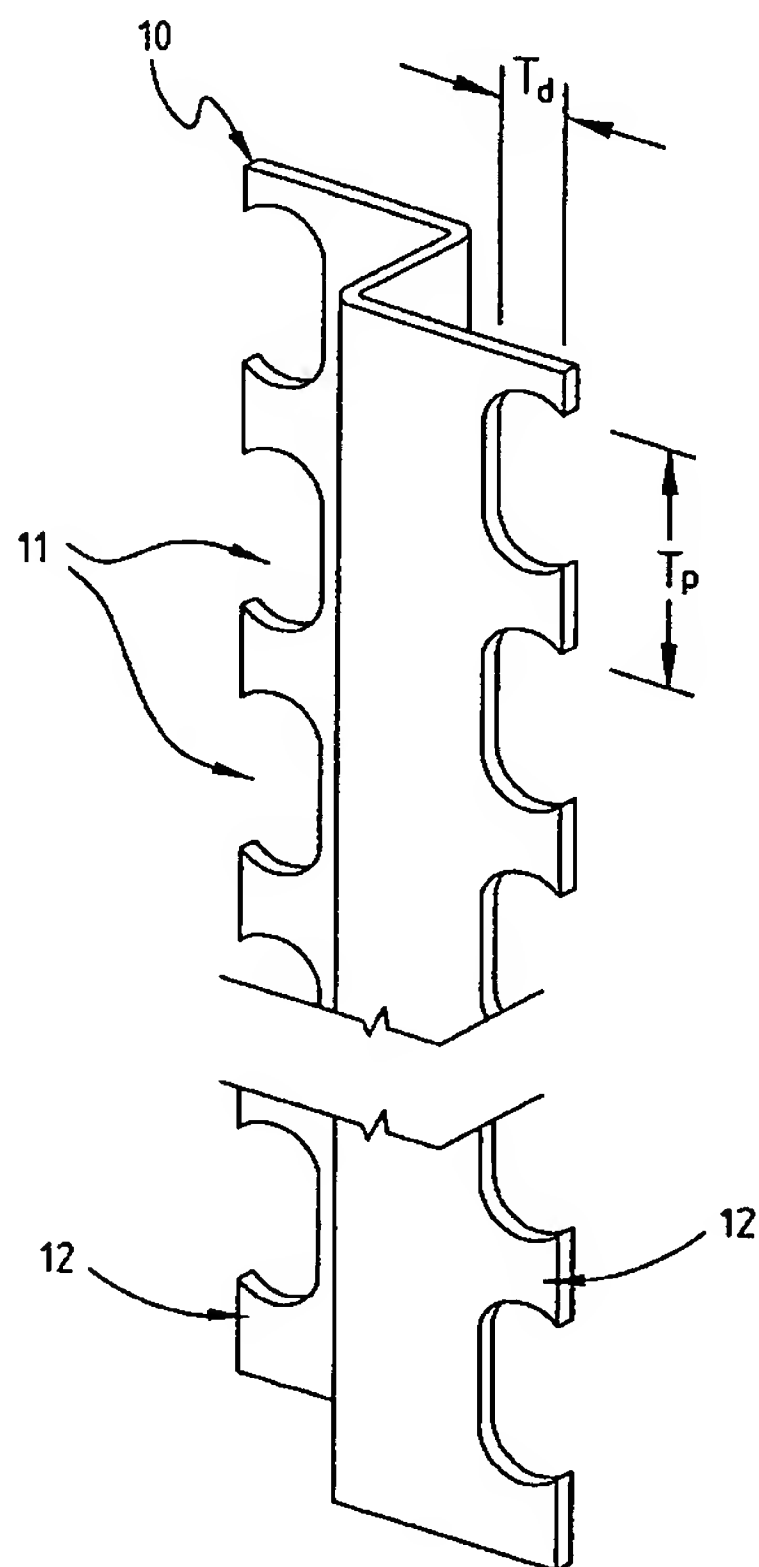
John [AU/AU]; 29 Douglas Street, Sherwood, QLD 4075 (AU). WILKINS, John Walter [AU/AU]; 26 Lewis Street, Camp Hill, QLD 4152 (AU). NATHAN, Graham Jerrold [AU/AU]; RMB 283, Learmonth Court, SA 5153 (AU). KELSO, Richard Malcolm [AU/AU]; 175 Stephen Terrace, Walkerville, SA 5081 (AU). KALT, Peter Anthony Markus [AU/AU]; 7/3A Hughes Avenue, Kensington, SA 5068 (AU).

(74) Agent: CULLEN & CO.; Level 26, 239 George Street, Brisbane, QLD 4000 (AU).

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(54) Title: IMPROVED PARTICLE INTERACTIONS IN A FLUID FLOW



(57) Abstract: Interaction between two different species of particle(s) in a fluid stream is promoted by generating turbulent eddies (1, 2) in a fluid stream. The turbulente eddies are designed to be of such size and/or intensity that the different sized particle(s) are entrained into the eddies to significantly different extents and forced to follow different trajectories (3, 4), increasing the likelihood of collisions and interactions. Optimum collision rates will occur for a system which maintains a Stokes Number (St) much less than 1 for one sized particle, and or order 1 or greater for the other sized particle. The invention has particular application in air pollution control, whereby agglomeration of fine particles into larger particles is promoted, subsequent to their removal.

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